

The municipal component of the City's stormwater program includes proper management of facilities owned and operated by the City of Lemon Grove to eliminate or reduce the amount of pollutants that enter the storm drain system. The City maintains streets, sewers, the storm drain system, and municipally owned facilities which includes six public parks, a fire station, a municipal yard, four office type buildings, a senior center, a public parking lot, one recreation center with a gymnasium, and one vacant lot. The updated municipal facilities index and inspection results are in Attachment J. The City also conducts high threat to water quality activities, as defined in the Permit, such as street and sidewalk repair, painting, graffiti abatement, equipment maintenance, and minor vehicle maintenance. The City, however, also performs a number of activities that are beneficial to water quality, such as street sweeping, inspections of municipal facilities, educational efforts geared toward municipal personnel, annual MS4 inspection and cleaning, and regular upkeep of the sanitary sewer to prevent overflows and illegal connections.

4.1 Roads, Streets, Highways, and Parking Facilities

Roads, streets, highways, and parking facilities can collect a variety of pollutants due to routine vehicle use and have a tendency to collect litter and debris from neighboring areas and activities. Regular maintenance is necessary to control pollutants such as sediment, metals, litter, and debris on roads, streets, highways, and parking facilities.

4.1.1 Source Characterization

The City maintains 65.5 miles of roadway in Lemon Grove and one public parking lot. This number includes main arterials, curbed residential, and non-curbed residential streets. The City also maintains center islands and medians on these streets and in all parking lots including those attached to municipal buildings. The City does not maintain any highways.

4.1.2 Best Management Practice Requirements

Both pollution prevention methods and BMPs are implemented for roads, streets, highways, and parking facilities throughout the City. The City utilizes both the City's JURMP and the CASQA Municipal Handbook to choose applicable BMPs to implement for roads, streets, and parking facilities within the City. Street sweeping is the main BMP that is implemented for these sources. Treatment control BMPs are used for all road sections which are subject to SUSMP requirements, described in more detail in Section 2.0.

4.1.3 Program Implementation

This section describes the steps that were taken in FY 2009-10 to require and verify the implementation of designated BMPs for all City maintained roads, streets, and parking areas and related activities as outlined in the Permit Section D.3.a(5)(a-c).

The City currently implements an aggressive sweeping schedule for its roads, streets, and parking facilities. Long before Order 2007-01 was approved, the City was sweeping to its standards.

The frequency of street sweeping is as follows:

- ❖ Major arterial curbed streets – weekly
- ❖ All other curbed streets – biweekly
- ❖ Non-curbed streets – monthly
- ❖ Center islands and medians – monthly
- ❖ Major parking lots and alleys – weekly
- ❖ All other parking lots and alleys – monthly

During FY 2009-10, the City maintained its street sweeping mileage from the previous reporting period, approximately 80 miles and 175 tons of debris were collected. These figures include the regular sweeping of roads and parking lots, as well as specialty or requested road sweeps and the municipal yard. The City also sweeps bus stops, various parking lots and miscellaneous private streets based on need.

4.2 Fixed Facilities

The City owns and operates a variety of fixed facilities that have been grouped in this section because these facilities received formal inspections as part of the stormwater program. Therefore, the program implementation for these facilities is generally the same. Municipal fixed facilities include the following:

- ❖ Parks and Recreation Facilities
- ❖ Public Works Facilities
- ❖ Fire Stations
- ❖ Other Fixed Facilities

4.2.1 Source Characterization

The City inspects all municipal facilities on an annual basis. This includes the following list of facilities:

- ❖ All six public parks (Kunkel, Berry Street, Lemon Grove, City Center, Fireman's, and Monterey Heights)

- ❖ Fire Station
- ❖ Recreation Center
- ❖ The Community Center
- ❖ City Hall/Sheriff's Station
- ❖ Senior Center
- ❖ City Hall Annex
- ❖ Trolley Depot

The City's JURMP does rank each of these facilities based on their threat to water quality, however due to the City's small size it is possible to inspect each facility on an annual basis.

Parks and Recreation Facilities

The City operates six public parks:

- ❖ Berry Street Park – 7101 Mt. Vernon St., Chollas Creek watershed
- ❖ City Center Park – 7715 Church St., Chollas Creek watershed
- ❖ Fireman's Park – School Ln and Central Ave, Chollas Creek watershed
- ❖ Kunkel Park – 8171 Lemon Grove Way, Sweetwater River watershed
- ❖ Monterey Heights Park – Canton and Glencoe, Chollas Creek watershed
- ❖ Lemon Grove Park – Washington and Alton, Chollas Creek watershed

All landscape maintenance activities are performed through the City's Grounds Division. In previous reporting periods, a portion of the parks were maintained through a private contractor. However, due to current budget constraints, those services were cut and taken over in-house. The Grounds division is trained and certified to handle pesticides, herbicides and fertilizers properly. They perform all landscaping and irrigation maintenance, as well as all trash and debris removal for all six parks.

Public Works Facility

The City owns and operates one public works yard. The only equipment maintained on site is the landscaping equipment used by the Ground's Division. This frequently includes mowers, the Gator (a small all terrain vehicle), chain saws, and other small devices. The City maintains a small fleet of large vehicles including several pick-up trucks, a dump truck, a paver, a video camera truck, and a vacator truck. All large vehicle service is performed off site under a private contract at a non-City facility. The public works yard does not contain a gas filling station and all materials are stored under covered areas, in doors, or surrounded by BMPs like straw wattle and gravel bags.

Fire Stations

Fire fighting is an essential element of municipal activities conducted in the City. The City has one fire station at 7853 Central Ave. The fire station is home to three engines and one ambulance response vehicle. All servicing on these vehicles is done off site under contract at a non-City owned facility. Very minimal equipment maintenance is performed on site. It includes the cleaning and maintaining of the hoses and chainsaws.

Other Fixed Facilities

Other fixed facilities include the City's office and administrative facilities.

- ❖ City Hall/Sheriff's Station – 3232 and 3240 Main St.
- ❖ City Hall Annex – 3225 Olive St.
- ❖ Community Center – 3146 School Lane
- ❖ Recreation Center – 3131 Main St.
- ❖ Senior Center – 8235 Mt. Vernon St.

Despite these facilities being low threats to water quality, all are inspected annually. Inspection results are in Appendix C.

4.2.2 Best Management Practices

4.2.2.1 Updated BMPs

In FY 2007-08, the City established minimum BMPs for various municipal activities at all fixed municipal facilities. The BMPs are outlined in the City's 2008 JURMP and the City's Municipal Code. The City also references the CASQA Municipal Handbook when choosing appropriate BMPs for various fixed facility types. More detailed information about BMP implementation at specific facility types is included in the following sub-sections. The City implements additional BMPs as deemed necessary, and implements equivalent BMPs when it is determined that a specific BMP is not feasible at a particular site. In addition to implementing BMPs, the City utilizes pollution prevention measures to reduce or eliminate the amount of pollutants generated from City-owned fixed facilities.

Parks and Recreation Facilities

In FY 2009-10, the City implemented a variety of BMPs to reduce or eliminate the amount of pollutants entering the MS4 from municipal parks and recreation facilities and other open landscaped areas, such as medians and traffic islands. The City is maintaining general waste management BMPs and encouraging facility users to recycle, properly dispose of trash, and pick up dog waste by providing conveniently located receptacles at parks and in common dog walk areas. Doggie bag dispensers are available at the 3 largest, most frequently

used parks (Berry Street, Lemon Grove, and Kunkel) and at City Center Park. These are frequently vandalized, but the City works hard to keep them full and operational. They are checked weekly and maintained as needed.

Due to their widespread outdoor use, pesticides, herbicides, and fertilizers can be common pollutants discharged to MS4s. Transport of these pollutants is often a result of the following: a) runoff from improper irrigation after application, b) application of chemicals during or prior to storm events, c) use of chemicals that do not properly absorb into soil or plants, and d) overspray from chemical applications that may eventually enter the MS4. The City maintains the following procedures and BMPs pertaining to integrated pest management:

- ❖ Educating and training staff and contractors on all BMPs
- ❖ Requiring any contracted party to adhere to all City codes and procedures pertaining to proper use of pesticides, herbicides and fertilizers
- ❖ Implementing a process for identifying pests and/or problems by site
- ❖ Selecting less toxic treatments
- ❖ Proper training and licensing of all personnel who handle pesticides, herbicides, and fertilizers
- ❖ Use integrated pest management techniques whenever possible
- ❖ Record keeping for application dates, times, locations, and quantities.
- ❖ Pesticides, herbicides and fertilizers are applied per manufacturers directions and only as needed.
- ❖ Compost, mulch, and soil amendments are used whenever possible.
- ❖ All federal, state and local regulations are followed
- ❖ Pesticides, herbicides and fertilizers are not applied prior to a predicted rain event
- ❖ Native and drought tolerant plants are used whenever possible
- ❖ Small weeding is done by hand
- ❖ Diseased or infected plants are removed completely, if proper treatment is ineffective
- ❖ Irrigation systems are remotely controlled and weather and flow sensitive to prevent over watering due to rain or a broken line

Public Works Facility

Public works staff implements appropriate BMPs for all activities that take place at the Public Works yard. This facility uses good housekeeping BMPs most frequently, including but not limited to spill kits, sweeping, dry clean up methods for any oil spills, and proper cleaning of painting equipment. Minimal small equipment maintenance is performed on site, limiting potential pollutants from vehicle maintenance and repair. All of the large vehicles are maintained off site. The site has a SWPPP which includes a site description, a description of potential sources of pollutants, a summary of existing BMPs, a description of BMPs to be implemented, and a monitoring and record keeping plan. The

SWPPPs is kept at the facility and the facility is inspected annually by water quality staff and monthly on an informal basis. All Public Works employees receive monthly informal training as detailed in Section 8 of this report.

Fire Stations

The City implements pollution prevention measures and BMPs to reduce or eliminate the amount of pollutants generated by fire fighting activities in the City. The City's fire station uses source control BMPs to minimize and control discharges related to washing activities. All fire fighting training activities which include aqueous film forming foam are conducted at a fire station outside of the City. All the engines and emergency vehicles are maintained off site. Only small equipment such as chainsaws are cleaned and maintained on site, always using best housekeeping practices to prevent pollutant generation. The Fire Marshal receives regular water quality updates at a weekly joint meeting with water quality, planning and engineering. Water quality staff has worked jointly with the fire department on several occasions when dealing weed abatement, commercial inspections, or illegal dumps. These occasions have provided excellent informal opportunities for education, which have been passed on to other fire personnel. It is common for fire personnel to call water quality personnel from the field with potential water quality concerns. They are an invaluable set of eyes in the community on a daily basis for potential water quality concerns.

Other Fixed Facilities

The City implements pollution prevention methods and BMPs to reduce or eliminate the amount of pollutants generated by the management of public buildings, other fixed facilities, and surrounding areas. The City implements BMPs to control erosion and sediment, during landscaping maintenance, and for waste management as per the Municipal Code and the CASQA Municipal Handbook.

The City employs a number of pollution prevention practices at City Hall. These practices have been expanded in recent years to include:

- ❖ The use of recycled paper for all copiers and printers
- ❖ Programmable thermostats to control heating and cooling systems
- ❖ Implementing a furlough work schedule, so main City buildings are closed very Friday
- ❖ Installing timers on exterior lighting
- ❖ Supplying each employee with a personal recycling container
- ❖ Providing large recycling containers near all dumpsters and access doors
- ❖ Lids on all dumpsters
- ❖ A battery collection site accessible by employees only
- ❖ Allowing City employees to participate in all local e-waste events

4.2.2.2 Additional Controls for Municipal Areas and Activities

If the City identifies any potential sources of other pollutants of concern for which water bodies in the City are 303(d) listed that could be a result of activities at fixed municipal facilities, additional controls will be required to be implemented where applicable. The City will implement additional controls for municipal areas and activities adjacent to or tributary to ESAs when determined to be necessary. Presently, there are no municipal fixed facilities that have been determined to need additional BMPs due to 303(d) listings. The City's primary watershed, Chollas Creek, is 303(d) listed for several pollutants, including heavy metals and Diazinon. The City's current BMPs are preventing these pollutants and many others to the MEP. Any changes would be detailed in the applicable future annual report.

4.2.3 Program Implementation

The City implements the municipal program using a variety of different processes, including maintenance, training and education, inspections, and enforcement actions if necessary. Program implementation also includes the continuous assessment of municipal programs to ensure that they are designed and executed in a manner that is most effective to reducing, and potentially eliminating, the threat of pollution from fixed municipal facilities.

4.2.3.1 Maintenance

In FY 2009-10, the City continued to conduct regular maintenance activities at fixed facilities, which included landscape maintenance, building maintenance, parking lot, and sidewalk repair, when necessary. Sweeping of the parking facilities associated with the municipal facility is conducted at these facilities during regular street sweeping hours.

City personnel are trained and required to implement the proper BMPs when at municipal facilities and when engaging in specific activities at those facilities. City personnel are also trained to dispose of any waste properly and to report illegal discharges/illicit connections, as they may come across them during normal work activities.

4.2.3.2 Training and Education

Municipal personnel are trained on implementing appropriate BMPs and preventing non-storm water discharges. In FY 2008-09, water quality staff provided regular training and updates to the following municipal departments: Public Works, Engineering, Planning, and Fire. A detailed description of the municipal education program can be found in Section 8 of this report.

4.2.3.3 Municipal Inspections

Water quality staff performs annual inspections at all of the City facilities. As part of the FY 2009-10 program, staff conducted 14 inspections, one at each facility. The results of these inspections can be found in Appendix J. Any required corrective actions have been taken. No enforcement actions were required at any of the municipal facilities during this reporting period.

4.3 MS4

The primary function of municipal separate storm sewer systems are to collect and transport surface runoff to receiving waters during storms in order to prevent flooding. The entire MS4 system is considered a high priority due to its tendency to collect and convey pollutants to receiving waters. The City's MS4 consists of streets, curbs, gutters, catch basins, inlets, pipes, natural channels, natural and piped creeks, and culverts. The City also maintains a number of treatment control BMPs such as filter inserts and curb inlet protection, which are included in the regular maintenance of the MS4. In order to reduce the transportation of pollutants into receiving water bodies, the City regularly maintains its MS4 to ensure that it remains both fully functional and free of pollutants to the MEP.

4.3.1 Source Characterization

The City maintains a variety of MS4 facilities which includes 190 catch basins and inlets, approximately 75 miles of piping, and approximately 2.5 miles of open channel. The City plans to put all of these facilities in GIS during future reporting periods. However, due to budget constraints, these plans are currently on hold.

4.3.2 Best Management Practice Requirements

4.3.2.1 Updated BMP Requirements

In FY 2007-08, the City prepared a JURMP update which directs staff to utilize the CASQA Municipal Handbook in addition to the Municipal code to choose applicable BMPs for municipal areas and activities, including MS4 maintenance. All of these BMPs are designed to prevent waste and pollutants from entering the MS4 system as well as ensuring that waste which is collected during maintenance for the City's MS4 does not re-enter the system.

The 2007 Permit requires that retrofitting flood management facilities be evaluated to determine the feasibility of providing additional pollutant removal from urban runoff and should only be conducted where determined to be effective. The City does not own or operate any flood management projects or flood control devices that may be retrofitted.

4.3.2.2 Additional Controls For Municipal Areas/Activities

The City will implement additional controls for MS4 facilities adjacent to or tributary to ESAs when determined necessary.

4.3.3 Program Implementation

The City's MS4 management program includes responding to complaints, detecting and ceasing IC/IDs; inspecting and maintaining MS4s by cleaning, removing sediment, debris, and excessive vegetation, by repairing and/or replacing damaged or failing MS4 structures; and by providing signage on storm drain inlets. The City trains and requires field staff to implement BMPs, inspect equipment and follow an action plan for regular maintenance, emergency maintenance, and/or discharge control. The City utilizes a vactor truck during MS4 maintenance to collect both dry and liquid debris from catch basins and inlets. Applicable BMPs are used during routine and emergency maintenance.

All maintenance activities during this reporting period were in compliance with the current Permit. All maintenance BMPs were updated in FY 2007-08 to correspond with any new Permit requirements.

4.3.3.1 Maintenance

A summary of the City's MS4 operation and maintenance activities that occurred throughout the fiscal year is included below:

- ❖ Within this reporting period, the City inspected forty-three roads, 190 catch basins and sixteen conveyances connected with the MS4. The same numbers as the previous reporting cycle. Only seven conveyances and 68 catch basins were found to be in need of cleaning and 100 percent of these were cleaned prior to the end of the reporting period. This resulted in the removal of approximately 1,860 pounds of trash and debris from the catch basins, conveyances, and roads. The City also manually removed invasive plant growth from those seven conveyances, providing approximately another 1,500 pounds of green debris. The cleaning of catch basins and conveyances is an annual event that takes place prior to the beginning of the rainy season and usually occurs between October and November.
- ❖ The City continues to install Trident Curb screens and has added Streamhawks to several curb inlets as well. Both of these devices prevent trash, debris, and sediment from entering the MS4 by keeping the debris in the curb line and easily accessible to the street sweepers. The City attributes the decreases in trash quantities found in and around conveyances to these devices and the more efficient use of the street sweepers.

4.4 Sanitary Sewer System

Spills and/or leaks caused by a malfunction or failure of a component of the City's sanitary sewer system have the potential to introduce a significant volume of untreated sewage into receiving water bodies. Untreated sewage can contain high concentrations of bacteria, viruses, and parasites, all of which have the potential to negatively impact the environment and pose a significant threat to human health. Untreated sewage also has the potential to contain a variety of hazardous chemicals, which also pose threats to environmental and human health. The City conducts routine inspections and maintenance of the sanitary sewer system to ensure that the system is functioning properly. Routine inspections and maintenance of the sanitary sewer system reduces the potential for an overflow and helps prevent and eliminate infiltration of seepage to the MS4. The City also responds to sanitary sewer overflows to reduce or eliminate the amount of untreated sewage that reaches nearby portals to the MS4 and aids in cleaning up and disposing of overflow residue.

4.4.1 Source Characterization

The City maintains 64.952 miles of sanitary sewer pipeline. The sanitary sewer system serves the entire Lemon Grove area and connects with San Diego and La Mesa's sewer systems. La Mesa utilizes 728.60 EDU of Lemon Grove's sewer space and San Diego uses 986.20 EDU.

4.4.2 Best Management Practice Requirements

4.4.2.1 Updated BMP Requirements

The City has created and maintains basic BMPs in the JURMP and the Municipal Code. The City also utilizes the CASQA Municipal Handbook as a reference guide for BMP implementation, including the maintenance of the sanitary sewer system.

Similar to the MS4 maintenance program, the City trains field staff on implementing BMPs, equipment inspection, and the action plan that is followed for regular maintenance and emergency maintenance and/or discharge control. Structural BMPs are used during routine and emergency maintenance, where applicable.

4.4.2.1 Additional Controls for Municipal Areas and Activities

The City implements additional controls for sanitary sewer facilities adjacent to or tributary to ESAs, if applicable and when determined to be necessary. The City has a regular sanitary sewer maintenance program that minimizes sanitary sewer overflows (SSO) and is described briefly below and in more detail in the City's Sanitary Sewer Management Plan (SSMP) in accordance with Order 2006-03.

4.4.3 Program Implementation

The City's sanitary sewer management program includes responding to overflows and spills as necessary, identifying spills and leaks, containing and controlling spilled materials, repairing damaged and leaking sewer lines, remediation of existing lines as necessary, and proper disposal of hazardous waste.

4.4.3.1 Maintenance

The City maintains a routine maintenance schedule for the sanitary sewer system. In FY 2009-10, the City cleaned and maintained the following portions of the sewer system. Hotspots are inspected three times annually and easements are inspected twice annually.

Table 4.1
Sanitary Sewer Services in Feet

	Total FY 2005-06	Total FY 2006-07	Total FY 2007-08	Total FY 2008-09	Total FY 2009-10
Cleaned	298,043	331,369	52,493	646,943	359,174
Root Cut	18,370	20,927	36,039	596,943	329,174

Within those numbers is the following information:

- ❖ 26,919 feet of hotspot line was cleaned and root cut
- ❖ 124,265 feet of easement line was cleaned and root cut
- ❖ 207,990 feet of right of way line was cleaned and root cut

All SSO information was reported electronically to the Regional Board through the SSMP program. However, the City had no mainline overflows during this reporting period. The appropriate City staff are trained in detecting, reporting, and responding to all SSOs.

4.5 Mobile Municipal Activities

The City conducts a number of activities, which are not confined to any specific locations. Due to the nature of these mobile activities, temporary structural and source control BMPs are implemented as necessary.

4.5.1 Source Characterization

The City conducts a number of activities that are not designated to a specific location. Such activities include, but are not limited to, the following:

- ❖ Power washing for graffiti removal
- ❖ Street and sidewalk repair and maintenance (striping, repainting, and pothole repair)
- ❖ Landscape maintenance

4.5.2 Best Management Practice Requirements

4.5.2.1 Updated BMP requirements

The City implements good housekeeping and general pollution prevention measures during municipal maintenance activities, including the mobile activities described above. During the City's JURMP update, minimum BMPs were established for all municipal activities. The City also references the CASQA handbook and the Municipal Code to ensure the use of all applicable BMPs for any given activity.

4.5.2.2 Additional Controls for Municipal Areas and Activities

The City implements additional controls for municipal mobile activities adjacent to or tributary to ESAs when determined necessary. Presently, City related mobile activities have not been determined a high threat to water quality. Public Works and Grounds division staff are vigilant about the use of proper BMPs when doing any mobile activity. Pollutant generation is limited to the MEP through temporary BMPs such as gravel bags and straw wattles or good housekeeping practices such as dry spill cleaning, wet vacuums, and sweeping. During this reporting period, the current BMPs were evaluated and determined to be sufficient and to the MEP.

4.5.3 Program Implementation

In FY 2009-10, City staff were sufficiently educated in the proper BMPs to utilized during mobile activities. These BMPs include proper containment, control, and capture of any discharge generated by a mobile activity and possibly carrying pollutants.

4.6 Special Events

The City hosts a very limited number of special events each year and even fewer under the current economic climate. The current line-up consists of the Winter Bonfire, the Fire Station Open House, and Concerts in the Park. Special events have the potential to generate significant trash and litter caused by the patrons

and activities of the special event. The City utilizes many of the controls listed in Permit Section D.3(2)(f). These BMPs are described in more detail below and are implemented during and/or after special events, when and where applicable.

4.6.1 Source Characterization

The City hosts a few special events each year that have the potential to produce trash and debris pollutants.

4.6.2 Best Management Practice Requirements

4.6.2.1 Updated BMP Requirements

In FY 2009-10, the City implemented many of the controls specific to special events listed in Section D.3(2)(f) of the Permit. The City has chosen the following BMPs as most effective and efficient for City needs.

Anyone outside of the City seeking a Special Events Permit, must ensure the following BMPs are maintained:

- ❖ Proper management of trash and litter, including temporary trash receptacles
- ❖ Post clean up activities, such as catch basin cleaning and general litter pick-up, when necessary
- ❖ Post event street sweeping, when necessary
- ❖ Other BMPs when considered necessary by City staff

The City will consider implementing additional BMPs depending on the site location, site conditions, and/or type of special event.

4.6.2.2 Additional Controls for Municipal Areas and Activities

The City will implement additional controls for municipal special events adjacent to or tributary to ESAs when determined to be necessary.

4.6.2.3 Program Implementation

In FY 2009-10, there were the following City sponsored special events:

- ❖ Movie Night in the Park
- ❖ 6 Concerts in the Park
- ❖ Winter Bonfire
- ❖ Fire Station Open House

At a minimum, these events were required to provide extra trash and recycling containers, proper disposal of grease if food preparation was involved, and proper secondary containment for port-a-potties.

During the events, City staff was on hand to ensure that the event remained free of illegal discharges and/or illicit connections to the MS4. City staff were available for the duration of the event and afterwards for immediate trash removal and to notify the appropriate staff if a problem was observed.